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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,432	11/29/2001	Charles Robert Granitz	13DV14003	6295

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GENERAL ELECTRIC COMPANY
GE AVIATION
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EXAMINER

HARRISON, MONICA D

ART UNIT	PAPER NUMBER
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2893

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10/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/998,432	Applicant(s) GRANITZ ET AL.	
	Examiner Monica D. Harrison	Art Unit 2893	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,21-25,28,32 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,21-25,28,32 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/25/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment filed 4/25/08 has been entered. Examiner acknowledges claims 5-20, 26, 27 and 29-31 are cancelled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pall et al (4,050,237) in view of Dickinson (5,050,375).

2. Regarding claim 1, Pall et al discloses a method of operating a gas turbine engine (Figure 3, reference 30) which powers an aircraft (column 1, lines 6-17), said engine having a lubrication sump (Figure 3, reference 38) which vents air through a vent (Figure 3, reference 39) which produces an exit pressure at the exit of the vent (column 8, lines 21-44).

However, Pall et al does not disclose comprising: a) running the engine at idle; b) maintaining an eductor in fluid communication with said vent, which eductor: i) reduces pressure in said vent when actuated, and ii) includes a flow restrictor downstream of said vent; and c) actuating said eductor during idle operation, so as to reduce said exit pressure.

Dickinson discloses a) running the engine at idle (Figure 1); b) maintaining an eductor (Figure 1, reference 148) in fluid communication (Figure 1, reference 147) with said vent (Figure 1, reference 150), which eductor: i) reduces pressure in said vent when actuated (Figure 1, reference 151)), and ii) includes a flow restrictor downstream of said vent (Figure 1, references

Art Unit: 2893

132 and 134); and c) actuating said eductor during idle operation, so as to reduce said exit pressure (Figure 1).

It would have been obvious, at the time the invention was made, for one having ordinary skill in the art, to modify Pall et al, with the teachings of Dickinson for the purpose of forming a pressurized wet combustion at increased temperature and reduced pressure in turbine engines.

3. Regarding claim 2, Pall et al discloses wherein the reducing of paragraph (b) comprises ducting a compressor discharge bleed (Figure 3, reference 34) to an eductor connected to the vent, to thereby draw air through the vent (Figure 3).

4. Regarding claim 22, Dickinson discloses wherein the flow restrictor is within the mixing throat of the eductor (Figure 1, reference 117).

5. Regarding claim 25, Dickinson discloses d) using the eductor to maintain fluid flow through the vent above a predetermined minimum, said fluid flow being accompanied by said reducing of pressure (Figure 1, reference 148).

Claims 3, 4, 21, 23, 24, 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pall et al (4,050,237) and Dickinson (5,050,375) in view of Letang et al (6,067,489).

6. Pall et al and Dickinson disclose the above claimed subject matter. However, Pall et al and Dickinson do not disclose d) terminating the reduction of exit pressure when flow through the vent exceeds a floor (claim 3), d) raising speed of the engine; and e) terminating the reduction of exit pressure (claim 4), d) maintaining the eductor in a de-actuated state at cruise speed (claim 21), d) terminating the reduction of said exit pressure during cruise operation (claim 23), e) during cruise operation, using the flow restrictor to reduce flow through the vent below

Art Unit: 2893

that which would occur in the absence of the flow restrictor (claim 24), f) at cruise speeds, restricting flow through said vent (claim 28), nor wherein the terminating accompanies the raising (claim 32).

Letang et al discloses d) terminating the reduction of exit pressure when flow through the vent exceeds a floor (column 3, lines 18-30), d) raising speed of the engine (column 19, lines 60-67 thru column 20, lines 1-17); and e) terminating the reduction of exit pressure (column 3, lines 18-30), d) maintaining the eductor in a de-actuated state at cruise speed (column 8, lines 17-50), d) terminating the reduction of said exit pressure during cruise operation (column 8, lines 17-50), e) during cruise operation, using the flow restrictor to reduce flow through the vent below that which would occur in the absence of the flow restrictor (column 8, lines 17-50), f) at cruise speeds, restricting flow through said vent (column 8, lines 17-50) and wherein the terminating accompanies the raising (column 19, lines 60-67 thru column 20, lines 18-30).

It would have been obvious, at the time the invention was made, for one having ordinary skill in the art, to modify Pall et al and Dickinson with the teachings of Letang et al, for the purpose of controlling an eductor at cruise speeds in order to control the engine load and temperature.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pall et al (4,050,237) and Dickinson (5,050,375) in view of Marsh et al (6,213,080 B1).

7. Pall et al and Dickinson disclose the above independently claimed subject matter of claim 1. However Pall et al and Dickinson do not disclose wherein the sump is gravity fed (claim 33).

Art Unit: 2893

Marsh et al discloses wherein the sump is gravity fed (column 11, lines 42-67 thru column 12, lines 1-5).

It would have been obvious, at the time the invention was made, for one having ordinary skill in the art, to modify Pall et al and Dickinson with the teachings of Marsh et al, for the purpose of using a sump the is gravity fed in order to control continuous lubricating oil.

Response to Arguments

8. Applicant's arguments with respect to claims 1-4, 21-25, 28, 32 and 33 have been considered but are moot in view of the new ground(s) of rejection. Dickinson and Letang et al disclose the amended subject matter of the instant application.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2893

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica D. Harrison whose telephone number is (571)272-1959.

The examiner can normally be reached on M-F 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Davienne Monbleau can be reached on 571-272-1945. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Monica D. Harrison/
Examiner, Art Unit 2893

mdh
October 1, 2008

/Davienne Monbleau/
Supervisory Patent Examiner, Art Unit 2893

Application/Control Number: 09/998,432

Page 7

Art Unit: 2893